Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India
(Autonomous Institute Affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
ILE914	Cyber Security and Laws	3	--	--	3	--	--	3
		Examination Scheme						
		ISE		MSE		ESE		
		10		30		100 (60% Weightage)		

Pre-requisite Course Codes		Communication Networks
After successful completion of the course students will able to:		
Course Outcomes	CO1	Identify and classify various cybercrimes with respect to organizational weaknesses in order to mitigate the security risk and estimate the impact on society and world
	CO2	Interpret and apply Indian IT laws in various legal issues
	CO3	Compute security risk and analyze it
	CO4	Analyze the results of vulnerability scans of vulnerability assessment and generate report with penetration testing
	CO5	Apply Information Security Standards compliance during software design and development

Module No.	Unit No.	Topics	Ref.	Hrs.
1		**Introduction to Cyber Security**	1,2	10
		Cybercrime definition and origins of the world, Cybercrime and information security, Classifications of cybercrime, Cybercrime and the Indian ITA 2000, A global Perspective on cybercrimes.	1	
		Cyber offenses & Cybercrimes: How criminal plan the attacks, Social Engg, Cyber stalking, Cyber café and Cybercrimes, Botnets, Attack vector, Cloud computing, Proliferation of Mobile and Wireless Devices, Trends in Mobility, Credit Card Frauds in Mobile and Wireless Computing Era, Security Challenges Posed by Mobile Devices	1,7	
2		**Tools and Methods Used in Cybercrime:** Phishing, Password Cracking, Keyloggers and Spywares, Virus and Worms, Steganography, DoS and DDoS Attacks, SQL Injection, Buffer Over Flow, Attacks on Wireless Networks,Identity Theft (ID Theft)	1,2	06
3		**Security Risk Assessment and Risk Analysis:** Risk Terminology, Laws, Mandates, and Regulations,Risk Assessment Best Practices,The Goals and Objectives of a Risk Assessment, Best Practices for Quantitative and Qualitative Risk Assessment. **Vulnerability Assessment and Penetration Testing (VAPT):**	7,8,10	12

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		VAPT An Overview,Goals and Objectives of a Risk and Vulnerability Assessment,Vulnerability Assessment Phases-Discovery,Exploitation/Analysis , Reporting Penetration Testing Phases-Discover/Map,Penetrate Perimeter,Attack Resources, Network and Web VAPT Process		
4		**Cyber Security Laws and Legal Perspectives:** The Concept of Cyberspace E-Commerce , The Contract Aspects in Cyber Law ,The Security Aspect of Cyber Law ,The Intellectual Property Aspect in Cyber Law, The Evidence Aspect in Cyber Law, The Criminal Aspect in Cyber Law, Global Trends in Cyber Law, Legal Framework for Electronic Data Interchange Law Relating to Electronic Banking , The Need for an Indian Cyber Law	1,4	08
5		**Indian IT Act:** Cyber Crime and Criminal Justice: Penalties, Adjudication and Appeals Under the IT Act, 2000, IT Act. 2008 and its Amendments **Information Security Standard compliances:** SOX, GLBA, HIPAA, ISO, FISMA, NERC, PCI-DSS	1,2,4,6	04
			Total	**40**

References:
1. Nina Godbole, Sunit Belapure, Cyber Security, Wiley India, New Delhi.
2. The Indian Cyber Law by Suresh T. Vishwanathan; Bharat Law House New Delhi
3. The Information technology Act, 2000; Bare Act- Professional Book Publishers, NewDelhi.
4. Cyber Law & Cyber Crimes By Advocate Prashant Mali; Snow White Publications, Mumbai
5. Nina Godbole, Information Systems Security, Wiley India, New Delhi
6. Kennetch J. Knapp, Cyber Security & Global Information Assurance Information Science Publishing.
7.Michael Gregg & David Kim,Inside Network Security Assessment: Guarding Your IT Infrastructure, Pearson Publication
8. M. L. Srinivasan, CISSP in 21 Days - Second Edition PACT Publication
9. Charles P. Pfleeger and Shari Lawrence Pfleeger, Security in Computing, Pearson Publication
10. Douglas J. Landoll, The Security Risk,Assessment Handbook-Second Edition ,Auerbach Publications
11. Websites for more information is available on : The Information Technology ACT, 2008- TIFR : https://www.tifrh.res.in
12. Website for more information , A Compliance Primer for IT professional: https://www.sans.org/reading-room/whitepapers/compliance/compliance-primer-professionals-33538